



ABSTRACT OF THE DISCLOSURE

The present invention determines the ESD event by detecting the voltage value of the power source. The numbers N of the diodes 441 have to follow the condition of:

$$N \times V_T (0.7) > V_{cc} (\text{core})$$

Therefore, the diodes 441 will not influence normal operation outside of ESD events. When an ESD pulse is generated, the PN junction of the PMOS transistor is turned on, so the voltage value of V_{cc} is raised. At this time, the voltage value of $V_{cc} (\text{core})$ is " $V_{cc} - 0.7 - N_1 \times (0.7)$ ", N_1 represents the numbers of diodes between $V_{cc} (\text{core})$ and V_{cc} , which follows the condition of " $N_1 \times (0.7) > V_{cc} - V_{cc} (\text{core})$ " to ensure the diodes remain turned on in normal operation.

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